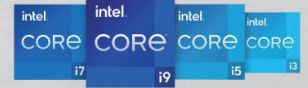


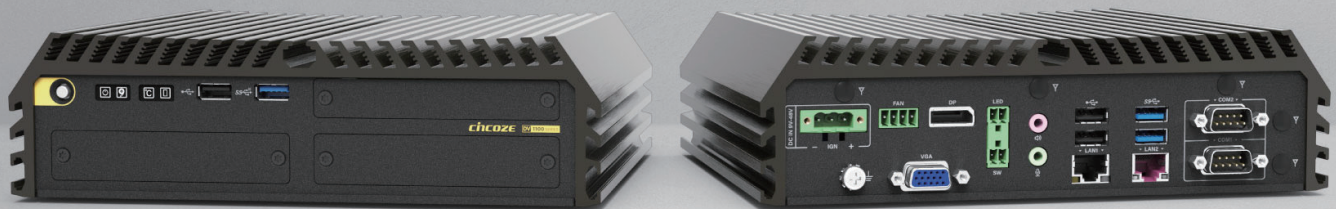
# DV-1100

13/12th Gen. Intel® Core™ Series High Performance and Basic Function Rugged Embedded Computer



## HIGH-PERFORMANCE | COST-EFFECTIVE

DV-1100, a 13/12th Gen Intel Core Series Rugged Computer



### Overview

CONTACT

The DV-1100 is a compact, high-performance, embedded edge computer that supports 13th/12th generation Intel® processors. Its balance between high-performance computing needs and cost-effectiveness enables enterprises to quickly analyze and process edge data for better decision-making and improved production efficiency and accuracy. The DV-1100 is ideal for smart manufacturing, machine vision, railway computing, and space-constrained applications where stability and reliability are paramount.

### Key Features

- Intel® 13/12th Gen. Core™ i9/i7/i5/i3 Processors (max 65 W TDP)
- 1x M.2 Key M Type 2280 Socket for PCIe Gen 4x4 NVMe Storage
- 1x M.2 Key E Type 2230 Socket for Wireless/Intel CNVi Module Expansion
- 1x M.2 Key B Type 3052/3042 Socket for 5G/Storage/Add-on Card Expansion
- 1x M.2 Key B Type 2242 Socket for Storage/Add-on Card Expansion
- Optional CMI & CFM Modules for I/O Expansion & Power Ignition Sensing Function
- Wide operating temperature -40°C to 70°C
- Safety Standard: UL, cUL, CB, IEC, EN 62368-1

### Certifications

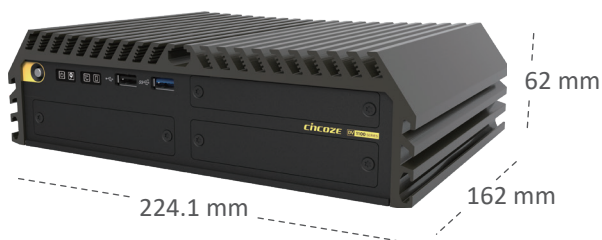


### Balancing Performance and Cost

The DV-1100 has a compact body and supports a 13th/12th generation Intel® Core™ processor. It provides sufficient computing performance for multitasking and diverse applications while balancing performance and cost.

## 13 / 12th Gen

Intel Core Series

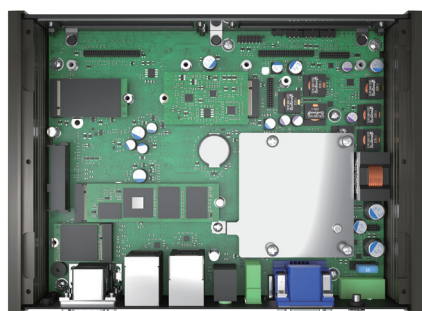


### Compact Size

The DV-1100 measures only 224.1 x 162 x 62mm, making it easy to install anywhere, including in space-constrained applications.

### Stunning Transfer and Access Speeds

The DV-1100 has high-speed I/O interfaces, including 2.5G LAN and 10Gbps USB 3.2 Gen2x1. Storage support includes 2.5" HDD/SSD and high-speed NVMe SSD.



### Excellent Extension Design

The DV-1100 has built-in M.2 Key B, M.2 Key E, and M.2 Key M slots for flexible wireless (5G, Wi-Fi, GNSS) and storage selection according to application requirements.

### Various Industry Certifications

The DV-1100's rugged design meets various industrial-grade and industrial certifications, such as EMC standards in industrial environments (EN 61000-6-2/4), US military shock vibration standards (MIL-STD-810H), railway computing EN50155 (EN 50121-3-2 only), and more.



## Specifications

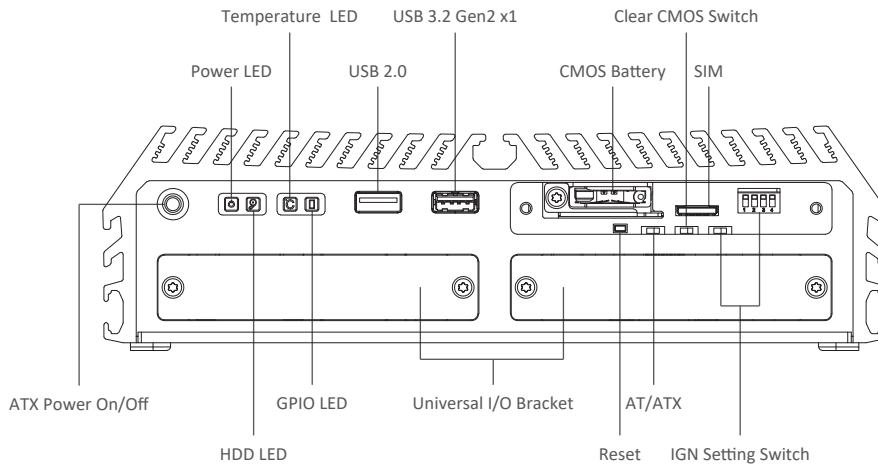
Model Name	DV-1100
<b>System</b>	
Processor	<ul style="list-style-type: none"> <li>13th Generation Intel® Raptor Lake-S Series CPU:                             <ul style="list-style-type: none"> <li>- Intel® Core™ i9-13900E 24 Cores Up to 5.2 GHz, TDP 65W</li> <li>- Intel® Core™ i7-13700E 16 Cores Up to 5.1 GHz, TDP 65W</li> <li>- Intel® Core™ i5-13500E 14 Cores Up to 4.6 GHz, TDP 65W</li> <li>- Intel® Core™ i5-13400E 10 Cores Up to 4.6 GHz, TDP 65W</li> <li>- Intel® Core™ i3-13100E 4 Cores Up to 4.4 GHz, TDP 60W</li> <li>- Intel® Core™ i9-13900TE 24 Cores Up to 5.0 GHz, TDP 35W</li> <li>- Intel® Core™ i7-13700TE 16 Cores Up to 4.8 GHz, TDP 35W</li> <li>- Intel® Core™ i5-13500TE 14 Cores Up to 4.5 GHz, TDP 35W</li> <li>- Intel® Core™ i3-13100TE 4 Cores Up to 4.1 GHz, TDP 35W</li> </ul> </li> <li>12th Generation Intel® Alder Lake-S Series CPU:                             <ul style="list-style-type: none"> <li>- Intel® Core™ i9-12900E 16 Cores Up to 5.0 GHz, TDP 65W</li> <li>- Intel® Core™ i7-12700E 12 Cores Up to 4.8 GHz, TDP 65W</li> <li>- Intel® Core™ i5-12500E 6 Cores Up to 4.5 GHz, TDP 65W</li> <li>- Intel® Core™ i3-12100E 4 Cores Up to 4.2 GHz, TDP 60W</li> <li>- Intel® Core™ i9-12900TE 16 Cores Up to 4.8 GHz, TDP 35W</li> <li>- Intel® Core™ i7-12700TE 12 Cores Up to 4.7 GHz, TDP 35W</li> <li>- Intel® Core™ i5-12500TE 6 Cores Up to 4.3 GHz, TDP 35W</li> <li>- Intel® Core™ i3-12100TE 4 Cores Up to 4.0 GHz, TDP 35W</li> <li>- Intel® Pentium® G7400E 2 Cores Up to 3.6 GHz, TDP 46W</li> <li>- Intel® Pentium® G7400TE 2 Cores Up to 3.0 GHz, TDP 35W</li> <li>- Intel® Celeron® G6900E 2 Cores Up to 3.0 GHz, TDP 46W</li> <li>- Intel® Celeron® G6900TE 2 Cores Up to 2.4 GHz, TDP 35W</li> </ul> </li> </ul>
Chipset	<ul style="list-style-type: none"> <li>Intel H610E Chipset</li> </ul>
Memory	<ul style="list-style-type: none"> <li>1x DDR5 4800Mhz SO-DIMM Socket</li> <li>Supports Un-buffered and non-ECC Type, Up to 32GB</li> </ul>
BIOS	<ul style="list-style-type: none"> <li>AMI BIOS</li> </ul>
<b>Graphics</b>	
Graphics Engine	<ul style="list-style-type: none"> <li>Integrated Intel® UHD Graphics 770: Core™ i9/i7/i5</li> <li>Integrated Intel® UHD Graphics 730: Core™ i3</li> <li>Integrated Intel® UHD Graphics 710: Pentium®/Celeron®</li> </ul>
Maximum Display Output	<ul style="list-style-type: none"> <li>Supports Triple Independent Display</li> </ul>
DP	<ul style="list-style-type: none"> <li>1x DisplayPort Connector: 3840 x 2160 @60Hz</li> </ul>
VGA	<ul style="list-style-type: none"> <li>1x VGA Connector: 1920 x 1200 @60Hz</li> </ul>
CMI Display	<ul style="list-style-type: none"> <li>1x CMI Interface for Optional CMI-DP/CMI-HDMI Module Expansion</li> </ul>
<b>Audio</b>	
Audio Codec	<ul style="list-style-type: none"> <li>Realtek® ALC888, High Definition Audio</li> </ul>
Line-out	<ul style="list-style-type: none"> <li>1x Line-out, Phone Jack 3.5mm</li> </ul>
Mic-in	<ul style="list-style-type: none"> <li>1x Mic-in, Phone Jack 3.5mm</li> </ul>
<b>I/O</b>	
LAN	<ul style="list-style-type: none"> <li>1x 2.5GbE LAN, RJ45                             <ul style="list-style-type: none"> <li>- Intel® I225</li> </ul> </li> <li>1x 1GbE LAN, RJ45                             <ul style="list-style-type: none"> <li>- Intel® I219</li> </ul> </li> </ul>
COM	<ul style="list-style-type: none"> <li>2x RS-232/422/485 with Auto Flow Control (Supports 5V/12V), DB9</li> </ul>
USB	<ul style="list-style-type: none"> <li>1x 10Gbps USB3.2 Gen 2x1, Type A</li> <li>2x 5Gbps USB 3.2 Gen 1x1, Type A</li> <li>3x 480Mbps USB2.0, Type A</li> </ul>

<b>Storage</b>	
SSD/HDD	<ul style="list-style-type: none"> <li>• 1x 2.5" SATA HDD/SSD Bay (SATA 3.0)</li> </ul>
M.2 SSD	<ul style="list-style-type: none"> <li>• 1x M.2 SSD Shared by M.2 Key M Type 2280 Socket, Support PCIe Gen 4x4 NVMe SSD or SATA 3.0 SSD</li> <li>• 2x M.2 SSD Shared by M.2 Key B Socket, Support PCIe Gen 3x2 NVMe SSD or SATA 3.0 SSD</li> </ul>
<b>Expansion</b>	
M.2 Key E Socket	<ul style="list-style-type: none"> <li>• 1x M.2 Key E Type 2230 Socket (PCIe Gen 3x2 / USB2.0), Support Wireless/Intel CNVi Module Expansion</li> </ul>
M.2 Key B Socket	<ul style="list-style-type: none"> <li>• 1x M.2 Key B Type 3042/3052 Socket (PCIe Gen 3x2 / USB3.2 Gen2 x1 / USB2.0 / SATA), Support 5G/Storage/Add-on Card Expansion</li> <li>• 1x M.2 Key B Type 2242 Socket (PCIe Gen 3x2 / USB2.0 / SATA ), Support Storage/Add-on Card Expansion</li> </ul>
SIM Socket	<ul style="list-style-type: none"> <li>• 1 x Front Accessible Dual Nano SIM Socket</li> </ul>
CMI (Combined Multiple I/O) Interface	<ul style="list-style-type: none"> <li>• 1x CMI Interface for optional CMI-Display Module Expansion</li> <li>• 2x CMI Interface for optional CMI-COM/DIO Module Expansion</li> </ul>
CFM (Control Function Module) Interface	<ul style="list-style-type: none"> <li>• 1x CFM IGN Interface for optional CFM-IGN Module Expansion</li> </ul>
<b>Other Function</b>	
External FAN Connector	<ul style="list-style-type: none"> <li>• 1x External FAN Connector, 4-pin Terminal Block (Support Smart Fan by BIOS)</li> </ul>
Clear CMOS Switch	<ul style="list-style-type: none"> <li>• 1x Clear CMOS Switch</li> </ul>
Reset Button	<ul style="list-style-type: none"> <li>• 1x Reset Button</li> </ul>
Instant Reboot	<ul style="list-style-type: none"> <li>• Support 0.2sec Instant Reboot Technology</li> </ul>
Watchdog Timer	<ul style="list-style-type: none"> <li>• Software Programmable Supports 256 Levels System Reset</li> </ul>
Antenna Hole	<ul style="list-style-type: none"> <li>• 5x Antenna Holes</li> </ul>
<b>Power</b>	
Power Button	<ul style="list-style-type: none"> <li>• 1x ATX Power On/Off Button</li> </ul>
Power Mode Switch	<ul style="list-style-type: none"> <li>• 1x AT/ATX Mode Switch</li> </ul>
Power Input	<ul style="list-style-type: none"> <li>• 9 - 48VDC, 3-pin Terminal Block</li> </ul>
Remote Power On/Off	<ul style="list-style-type: none"> <li>• 1x Remote Power On/Off, 2-pin Terminal Block</li> </ul>
Remote Power LED	<ul style="list-style-type: none"> <li>• 1x Remote Power LED, 2-pin Terminal Block</li> </ul>
Max. Power Consumption	<ul style="list-style-type: none"> <li>• 35W CPU: 204.46W</li> <li>• 65W CPU: 307.92W</li> <li>- Test conducted with CPU, 1x RAM, and 1x storage</li> <li>- 100% load during burn-in testing</li> </ul>
Inrush Current (Peak)	<ul style="list-style-type: none"> <li>• 35W CPU: 4.362 A@24V</li> <li>• 65W CPU: 4.516 A@24V</li> </ul>
<b>Physical</b>	
Dimension ( W x D x H )	<ul style="list-style-type: none"> <li>• 224.1 x 162 x 62 mm</li> </ul>
Weight Information	<ul style="list-style-type: none"> <li>• 2.52 KG</li> </ul>
Mechanical Construction	<ul style="list-style-type: none"> <li>• Extruded Aluminum with Heavy Duty Metal</li> </ul>
Mounting	<ul style="list-style-type: none"> <li>• Wall / DIN-RAIL / VESA Mount</li> </ul>
Physical Design	<ul style="list-style-type: none"> <li>• Fanless Design</li> <li>• Cableless Design</li> <li>• Jumper-less Design</li> <li>• Unibody Design</li> </ul>
<b>Reliability &amp; Protection</b>	
Reverse Power Input Protection	<ul style="list-style-type: none"> <li>• Yes</li> </ul>

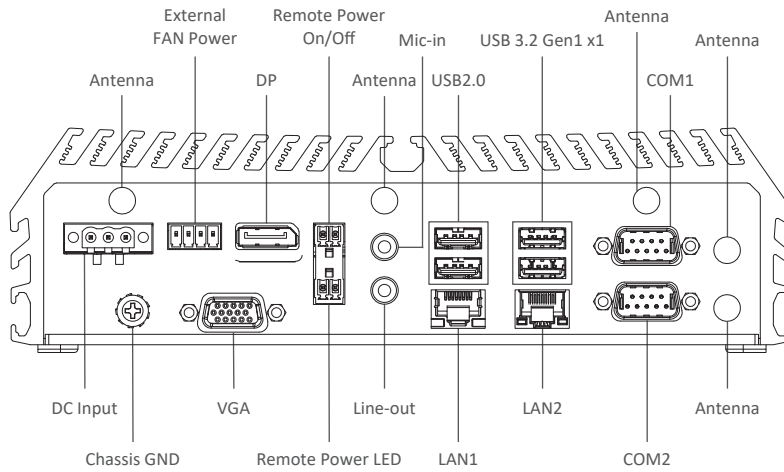
Over Voltage Protection	<ul style="list-style-type: none"> <li>• Protection Range: 51~58V</li> <li>• Protection Type: shut down operating voltage, re-power on at the preset level to recover</li> </ul>
Over Current Protection	<ul style="list-style-type: none"> <li>• 15A</li> </ul>
CMOS Battery Backup	<ul style="list-style-type: none"> <li>• SuperCap Integrated for CMOS Battery Maintenance-free Operation</li> </ul>
MTBF	<ul style="list-style-type: none"> <li>• 413,236 Hours</li> <li>- Database: Telcordia SR-332 Issue3, Method 1, Case 3</li> </ul>
<b>Operating System</b>	
Windows	<ul style="list-style-type: none"> <li>• Windows®11, Windows®10</li> </ul>
Linux	<ul style="list-style-type: none"> <li>• Ubuntu Desktop 22.04 LTS</li> </ul>
<b>Environment</b>	
Operating Temperature	<ul style="list-style-type: none"> <li>• 35W TDP Processor: -40°C to 70°C</li> <li>• 65W TDP Processor: -40°C to 55°C (With External Fan Kit)</li> <li>* PassMark BurnInTest: 100% CPU, 2D/3D Graphics (without thermal throttling)</li> <li>* With extended temperature peripherals; Ambient with air flow</li> <li>* According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14</li> </ul>
Storage Temperature	<ul style="list-style-type: none"> <li>• -40°C to 70°C</li> </ul>
Relative Humidity	<ul style="list-style-type: none"> <li>• 95% RH @ 70°C (Non-condensing)</li> </ul>
Shock	<ul style="list-style-type: none"> <li>• MIL-STD-810H</li> </ul>
Vibration	<ul style="list-style-type: none"> <li>• MIL-STD-810H</li> </ul>
EMC	<ul style="list-style-type: none"> <li>• CE, UKCA, FCC, ICES-003 Class A</li> <li>• EN IEC 61000-6-4 / EN IEC 61000-6-2 (24VDC Input Only)</li> <li>• EN 50155 (EN 50121-3-2 Only)</li> <li>• E-mark</li> </ul>
EMI	<ul style="list-style-type: none"> <li>• CISPR 32 Conducted &amp; Radiated: Class A</li> <li>• EN/BS EN 50121-3-2 Conducted &amp; Radiated: Class A</li> <li>• EN/BS EN IEC 61000-3-2 Harmonic current emissions: Class A</li> <li>• EN/BS EN 61000-3-3 Voltage fluctuations &amp; flicker</li> <li>• FCC 47 CFR Part 15B, ICES-003 Conducted &amp; Radiated: Class A</li> </ul>
EMS	<ul style="list-style-type: none"> <li>• EN/IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV</li> <li>• EN/IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 20 V/m</li> <li>• EN/IEC 61000-4-4 EFT: AC Power: 2 kV; DC Power: 2 kV; Signal: 2 kV</li> <li>• EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV</li> <li>• EN/IEC 61000-4-6 CS: 10V (**Compliant with the standard when utilizing shielded cable.)</li> <li>• EN/IEC 61000-4-8 PFMF: 50 Hz, 30A</li> <li>• EN/IEC 61000-4-11 Voltage Dips &amp; Voltage Interruptions: 1 cycles at 60 Hz</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• UL, cUL, CB, IEC, EN 62368-1</li> </ul>

**External Layout**

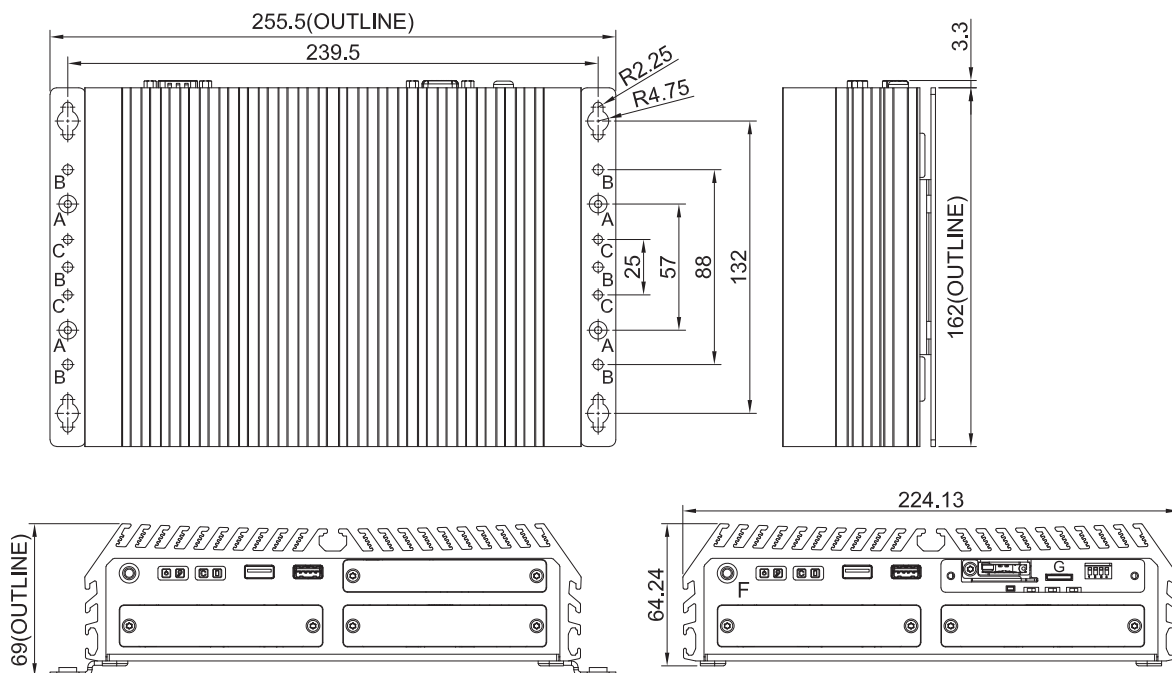
Front



Rear



**Dimensions**



Unit: mm



## Ordering Information

### Available Models

Model No.	Description
DV-1100-R10	13/12th Gen. Intel® Core™ Series High Performance and Basic Function Rugged Embedded Computer

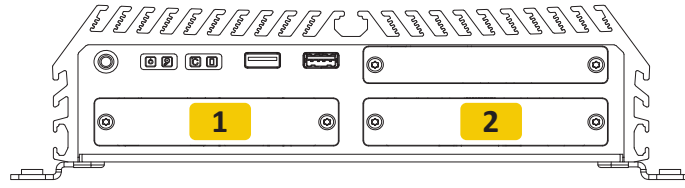
### Package Checklist





• DV-1100 Embedded Computer x1	• Wall Mounting Kit x1
• CPU Installation Kit x1	• Power Terminal Block Connector x 1
• External Fan Terminal Block Connector x 1	• Remote Function Terminal Block Connector x 2
• Screw Pack x 1	• M.2 Key B Type 3052 to Type 3042 Adapter Bracket x1

### Optional Modules and Accessories

Model No.	Description
CMI-DP01-R10	CMI Module with 1x DisplayPort
CMI-HD03-R10	CMI Module with 1x HDMI Port
CMI-COM06-R10	CMI Module with 2x RS232/422/485 Ports (Support 5V/12V)
CMI-DIO06-R10	CMI Module with 16DIO (8in 8out)
CFM-IGN04-R10	CFM Module with Power Ignition Sensing Function, 12V/24V Selectable
UB1603-R10	Universal Bracket with 2x DB9 Cutout
UB1606-R10	Universal Bracket with DP Cutout
UB1608-R10	Universal Bracket with HDMI Cutout
UB1618-R20	Universal Bracket with DIO Cutout
DINRAIL-R10	Diamond series DIN-RAIL Mount Kit
FAN-EX104	External Fan with 4pin Terminal Block Plug and Mounting Bracket, Support Smart Fan
GST120A24-CIN	Adapter AC/DC 24V 5A 120W with 3pin Terminal Block Plug and Tubes, Level VI
GST220A24-CIN	Adapter AC/DC 24V 9.2A 220W with 3pin Terminal Block Plug and Tubes, Level VI
GST360A24-CIN	Adapter AC/DC 24V 15A 360W with 3pin Terminal Block Plug and TUBES, Level VI
RSD-200D-24	Railway Single Output DC-DC Converter 200W / DC 24V

**Optional Module Configuration**



Model No.	Description	1	2
CMI-DP01/UB1606 	CMI Module with 1x DisplayPort / 1x Universal Bracket with DP Cutout for DV Series	-	V
CMI-HD03/UB1608 	CMI Module with 1x HDMI / 1x Universal Bracket with HDMI Cutout for DV Series	-	V
CMI-COM06/UB1603 	CMI Module with 2x RS232/422/485 Ports (Support 5V/12V) / 1x Universal Bracket with 2x DB9 Cutout for DV Series	V	V
CMI-DIO06/UB1618 	CMI Module with 16DIO (8in 8out) / 1x Universal Bracket with DIO Cutout for DV Series	V	V

V : Compatible